







2013 CVPIA Project - Sacramento River, Lower Cow Creek & Lower Clear Creek Watershed

- 1. Clear Creek Restoration Program, Long-term Gravel Supply Project, Environmental Compliance/Plan-Feasibility/Construction-Implementation
 - a. To supply and place 17,000 tons of gravel annually by constructing a gravel processing plant.
- 2. Clear Creek Restoration Program, McConnell Foundation, Construction/Implementation
 - a. When needed, Reclamation to fund water pumping costs associated with the Saeltzer Dam removal to McConnell Foundation.
- 3. Spawning and Rearing Habitat Restoration Program, Sacramento River project, Construction/Implementation
 - a. Place 10,000 tons of gravel.
- 4. Clear Creek Restoration Program, Geomorphic Monitoring, Construction/Implementation
 - a. Evaluate and monitor sediment (bedload) transport, spawning gravel movement, channel changes (such as longitudinal profiles, meander, scour, etc.). Also directly evaluates and documents changes in stream habitat resulting from pulse flow events.
- 5. Clear Creek Restoration Program, Channel Maintenance Flows, Planning-Feasibility
 - a. Ecosystem Restoration Program (ERP) grant to FWS for channel maintenance flow to assist in halting further habitat degradation and restoring channel conditions from the effects of past gravel mining.
- 6. Clear Creek Restoration Program, Spawning Gravel Evaluation, Construction/Implementation
 - a. Survey, identify, and map spawning areas utilized by Chinook salmon and steelhead. Evaluate spawning habitats relative to gravel injections, evaluate changes in spawning gravel quantity.
- 7. Clear Creek Restoration Program, EWP Federal, Environmental Compliance
 - a. Re-operation of Whiskeytown Dam to achieve a minimum 3,250 cfs flow event in Clear Creek for a 24-hr period, with the frequency of such an event occurring seven times during a ten-year period.
- 8. Clear Creek Restoration Program, Biological Monitoring Juvenile Assessment, Construction/Implementation
 - a. Juvenile production monitoring and estimation using rotary screw traps to capture juvenile salmon and steelhead, with emphasis on Spring-run Chinook salmon.
- 9. Comprehensive Assessment and Monitoring Program, Cow Creek Escapement (CCE), Monitoring (Programmatic)
 - a. Collect biological samples to assess the proportion of wild- vs. hatchery-origin salmon in the Cow Creek watershed to improve the accuracy of natural production estimates in that watershed, and determine if an AFRP salmon production estimate is being met.
- 10. Clear Creek Restoration Program, Lower Clear Cr Parkway Project, Construction/Implementation
 - a. A 5.24-acre riparian revegetation project planted in 2010.
- 11. Clear Creek Restoration Program, Lower Clear Cr Floodway 3B Project, Construction/Implementation
 - a. Revegetate 5 acres of riparian habitat; rerouting and decommissioning of roads in the Clear Creek drainage. Develop two scour channels in Clear Creek.
- 12. Clear Creek Restoration Program, Fall Chinook Salmon Area Mapping, Construction/Implementation
 - a. Fall Chinook salmon spawning area mapping. ("SAM") Assess/describe distribution and amounts of spawning habitat in relation to restoration actions such as spawning gravel injections. Evaluate and compare effectiveness of spawning gravel injections relative to restoration costs, adult returns, and habitat use by anadromous salmonids.

























